

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

MAILED

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BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERNEST A. VOISIN

Appeal No. 2002-0206
Application No. 09/121,725

HEARD: FEBRUARY 11, 2003

Before WALTZ, PAWLIKOWSKI and MOORE, Administrative Patent Judges.
MOORE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 3, 4, 6, and 7, which are all of the claims pending in this application. Claims 1, 2, 5 and 8-26 have been cancelled.

REPRESENTATIVE CLAIMS

Claims 3 and 6 are representative of the claimed subject matter and read as follow:

3. A process of destroying bacteria in raw molluscan shellfish, while said shellfish is in a shell, comprising the steps of:

providing a pressure vessel;
depositing said shellfish into said pressure vessel;
loading a pressure transmitting liquid into said pressure vessel;
pressurizing said pressure vessel to between about 20,000 p.s.i. and 50,000 p.s.i. for a period of time between 1 and 15 minutes, thereby causing elimination of naturally-occurring marine bacteria, while retaining sensory characteristics of said shellfish; and then
retaining said shellfish at a temperature below ambient temperature.

6. A process for treating raw oysters in a shell, which comprises:

exposing said raw oysters to a hydrostatic pressure of between 25,000 p.s.i. to 50,000 p.s.i. for 1-15 minutes at ambient temperature, thereby eliminating pathogenic *Vibriones* bacteria in said oysters.

The References

In rejecting the claims under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a), the examiner relies upon the following references:

Yasushi et al. (Yasushi or JP 4356156) 4356156 Dec. 9, 1992
(Japanese Patent Application)¹

Cheftel, "Effects of high hydrostatic pressure on food constituents: an overview," High Pressure and Biotechnology, Colloque INSERM/John Libbey Eurotext Ltd. (c) 1992, Vol. 224, pp. 195-209 (Cheftel).

¹ We rely upon and cite from a full English translation of this document, previously made of record.

The Rejections

Claims 6-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yasushi (JP 4365156A).

Claims 3-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yasushi (JP 4356156A).

The Invention

The present invention on appeal relates to a process for treating seafood in order to eliminate the pathogenic bacteria *Vibrio Vulnificus*. To accomplish this treatment, raw shellfish is deposited in a pressure vessel, the pressure vessel is loaded with a pressure transmitting liquid, the vessel is pressurized to 20,000 - 50,000 psi for 1 - 15 minutes at ambient temperature, eliminating the bacteria. The shellfish is retained at a temperature below ambient temperature. (Appeal Brief, page 2, lines 8 - 18, claims 3-4).

In another claimed embodiment, the treated seafood may be raw oysters which are exposed to hydrostatic pressures of 25,000 psi to 50,000 psi for 1-15 minutes to eliminate pathogenic *Vibriones* bacteria in the oysters. The oysters are enclosed in liquid impermeable bags prior to being exposed to the hydrostatic pressure. (Appeal Brief, page 2, line 19 - page 3, line 3, claims 6 and 7).

Discussion

I. The Petition to Make Special

Filed concurrently with the request for oral hearing (paper no. 17) was a petition to make special (no paper no.) based upon the age of the appellant. That paper was inadvertently erroneously filed as part of the request for oral hearing and never acted upon. The decision on petition (paper No. 23) is enclosed with this opinion and the delay is regretted.

II. The 35 U.S.C. § 102(b) Rejection

A. The Rejection

Claims 6 and 7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yasushi (JP 4356156A).

B. The Examiner's Position.

The examiner has found that Yasushi teaches a method of treating shellfish comprising exposing raw oysters contained in plastic bags filled with seawater to hydrostatic pressures of 14,615 - 44,087 psi for 0.5 to 10 minutes (Examiner's Answer, page 4, lines 1-4). As the claimed method steps are the same, the examiner reasons that the claimed characteristic of eliminating *Vibriones* bacteria, although not disclosed, is an inherent property and result of the referenced method, absent any clear and convincing evidence or arguments to the contrary. The examiner

also has found that high pressure treatment of seafood destroys pathogenic organisms such as *Vibriones*, illustrating this finding with Cheftal's disclosure. (Examiner's Answer, page 4, lines 5 - 12).

C. The Appellant's First Argument.

The appellant's principal substantive argument appears to be that "an important claim element, elimination of pathogenic *Vibrio Vulnificus* bacteria in oysters, is absent from the cited prior art" (Appeal Brief, page 8, lines 18-19). Consequently, it is urged, there is no anticipation.

D. Findings of Fact.

Our independent review of Yasushi results in our making the following numbered findings of fact² in addition to those of the examiner:

(1) Yasushi discloses the high pressure treatment of raw shellfish in a shell. (Paragraph 0004).

(2) Yasushi discloses pressure treating oysters specifically. (Paragraph 0005).

(3) Yasushi discloses treating shellfish at 1000 to 4000 normal atmospheric pressure for a predetermined period of time. (Paragraph 0006).

² All references to Yasushi are to the English language translation of record.

(4) Yasushi specifically discloses treating shellfish at 2000 normal atmosphere for about 3 to 10 minutes. (Paragraph 0006).

(5) Yasushi applies the high pressure by placing raw shellfish with a shell in seawater in a plastic container, sealing the plastic container, and placing the plastic container into a high pressure producing device. (Paragraph 0007).

(6) Yasushi's Embodiment 1 discloses placing two oysters with shells and sea water into a plastic bag, sealing the plastic bag, placing the plastic bag into a high pressure processing device, and applying a 3000 normal atmosphere high pressure for 3 minutes. (Paragraph 0010, Embodiment 1).

(7) 1 atmosphere is approximately equivalent to 14.696 psi.³

(8) 1000 atmospheres is approximately 14,696 psi.

(9) 2000 atmospheres is approximately 29,392 psi.

(10) 3000 atmospheres is approximately 44,088 psi.

(11) 4000 atmospheres is approximately 58,784 psi.

(12) The process of Yasushi is conducted on raw shellfish (page 1, purpose) resulting in meat in a raw condition (paragraph 0013).

(13) High pressure (e.g. 1.7 kbar) applied to shellfish at

³ Marks' Standard Handbook for Mechanical Engineers, Tenth Edition (1996), Table 1.2.21, page 1-32, attached hereto.

ambient temperature (23°C)⁴ acts to destroy pathogenic microorganisms such as *Vibrio* in shellfish (Cheftal, page 204, point 1.2; page 201, lines 10-11).

(14) 1 bar is approximately 14.5 psi.¹

(15) 1.7 kbar is approximately 24650 psi.

(16) Refrigeration was a well-known method of preserving shellfish such as oysters at the time the invention was made.⁵

(E) Conclusions of Law

We agree with the examiner that Yasushi's Embodiment 1 anticipates claims 6 and 7 for the reasons discussed in the examiner's answer. We add the following principally for emphasis and clarity.

Claim 6 recites a process for treating raw oysters in a shell (as does Yasushi, see finding of fact #2), which comprises exposing said raw oysters to a hydrostatic pressure of between 25,000 p.s.i. to 50,000 p.s.i. (as does Yasushi, see findings of fact 4, 6, 9 and 10) for 1-15 minutes (as does Yasushi, see findings of fact # 4 and 6) at ambient temperature (as does Yasushi, see finding of fact #12), thereby eliminating pathogenic

4 Marks' Standard Handbook for Mechanical Engineers, Tenth Edition (1996), Table 12.4.2, page 12-63, attached hereto.

5 Marks' Standard Handbook for Mechanical Engineers, Tenth Edition (1996), Table 19.1.16, page 19-22, attached hereto.

Vibriones bacteria in said oysters (see findings of fact 13-15). Claim 7 recites the step of enclosing the oysters in a liquid impermeable bag prior to exposing the oysters to hydrostatic pressure (as does Yasushi, see finding of fact #6).

We conclude, as did the examiner, that the process steps disclosed in Yasushi are identical to those of claims 6 and 7.

Appellant contends that Yasushi does not disclose the effect of the process, that is, the reduction of bacteria in the oyster, and therefore Yasushi cannot anticipate claims 6 and 7. We disagree.

Anticipation under 35 U.S.C. Section 102(e) requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). However, our reviewing court has held that even if a reference does not set forth every element of the claim, the reference may still be an anticipatory reference if the element is inherent in the disclosure. In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999).

A result that is inherent, i.e., that inevitably and necessarily occurs, as in this case, need not be recognized in a

prior reference that teaches a process encompassed by the claimed process. MEHL/Biophile Intl. Corp. v. Milgraum, 192 F.3d 1362, 1365, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999) ("Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art"); Id., at 1366, 52 USPQ2d at 1305-06 ("Where, as here, the result is a necessary consequence of what was deliberately intended, it is of no import that the article's authors did not appreciate the results.").

In the present instance, the Examiner has put forth credible and substantial evidence in the record that the pressure treatment of seafood destroys pathogenic microorganisms such as *Vibriones* (claim 6) in oysters. (Examiner's Answer, page 4, lines 10-12; citing Cheftel, page 204, heading 1.2). The examiner has also established with credible and substantial evidence that the claimed process steps are identical to that disclosed in Yasushi, which utilizes the same pressures as claimed by the appellant. (Examiner's Answer, page 4, lines 5-7).

We agree and also independently find that the effect claimed is necessarily and inevitably contained in the prior art disclosure of Yasushi. See, e.g., findings of fact 13 - 15.

Further, "[w]here . . . the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. § 102, on 'prima facie obviousness' under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products." In re Best, 562 F.2d 1252,1255 195 USPQ 430, 433-34 (CCPA 1977).

The burden of showing that the prior art process of, e.g. Yasushi's Embodiment 1, does not act to reduce the pathogenic organisms (e.g. *Vibriones*) in oysters, correctly falls to the appellant after the examiner has put forth evidence that the result is inherent and such a finding is made. The appellant has not carried that burden, consequently the prima facie case of anticipation of claims 6 and 7 stands.

F. Additional Arguments

The appellant has raised several additional arguments in favor of patentability, which are more procedural in nature than substantive, to which we now turn.

First among these arguments, the appellant states that the EPO has designated the instant reference an "A" reference and "[t]his is strong evidence that at least one person 'of ordinary skill in the art' recognized the cited reference as not defeating novelty of the present invention". (Appeal Brief, page 6, lines 14-16).

This argument is not persuasive as the EPO and the USPTO have different standards of patentability. The EPO's Article 54 and 35 U.S.C. § 102(b) are not identical, and the preliminary determination of the EPO as the International Searching Authority that a particular reference is background information showing the state of the art is entitled to little weight, especially when the scope of the claims of the European Application are not of record or otherwise known to this merits panel of the Board.

Second, the Appellant points to the letter of Dr. Kilgen as evidence that she did not "question the novelty of the claimed method." (Appeal Brief, page 7, lines 2-4). We have reviewed the document attached as Exhibit A to the Appeal brief and fail to see where it indicates that either (1) the author was aware of the disclosure of Yasushi or (2) that she had addressed the issue of novelty within the meaning of 35 U.S.C. § 102(b). Consequently, Dr. Kilgen's letter does not persuade us that the property of

reducing *Vibriones* as claimed in claim 6 was not inherently present in the disclosure of Yasushi.

Further, a reading of the document itself illustrates that it acknowledges that "[t]he effects of high pressure processing (HPP) of foods, which is a non-thermal means of preserving food products with no or minimal heat treatments, has actually been known for over 90 years (citations omitted). However, it has just recently re-emerged as a practical technology for cold pasteurization of foods." (Exhibit A, Letter of Kilgen, page 3, lines 8-11). Clearly, then, this is additional support for the proposition that one of ordinary skill in the art would expect the claimed result of claims 6 and 7 to be inherent in the process of Yasushi. The fact that only now had it become practical for use is not fatal to an anticipation determination.

Third, the appellant adduces the letter of Mr. Collette characterizing the invention as a " 'breakthrough needed to correct the problem' [of reduction of *Vibrio Vulnificus* bacteria]." (Appeal Brief, page 7, line 10). Again, this letter does not evidence that its author had any knowledge of the Yasushi reference, or its impact on the novelty of the instant claims. Further, the letter more precisely states that the process "could be one of the breakthroughs needed to correct the problem." (B,

Letter of Mr. Collette, page 1, lines 11-12) (emphasis added).

We therefore are not persuaded by Mr. Collette's letter that the Yasushi reference does not anticipate claims 6 and 7.

Fourth, the appellant directs us to Exhibit C, the letter of Dr. Moody, which is characterized by him as "evidence that a 'person of ordinary skill in the art' considers the instant invention novel and unobvious." (Appeal Brief, page 7, lines 22-23). The letter actually states that:

"Prior to Mr. Ernie Voisin contacting me about the possibility of using high-pressure treatment for the elimination of *Vibrio vulnificus* in raw molluscan shellfish, I was not aware of the process being used anywhere or by anyone for that purpose. In addition, I was not aware of anyone suggesting that the process be used for that purpose prior to Mr. Voisin contacting me." (Exhibit C, Letter of Dr. Moody, page 1, lines 16-19).

All this letter (Exhibit C) states is that its author was unaware of use of the process prior to being contacted by the appellant at an unspecified date. It is not evidence that the invention of claims 6 and 7 is not anticipated by Yasushi.

Consequently, we find that this letter (Exhibit C) is not persuasive as to the issue of whether Yasushi anticipates the subject matter of claims 6 and 7.

Fourth, the appellant points to the restriction requirement of July 21, 1999 (Paper No. 3) which required restriction between a method of eliminating bacteria and a method of shucking bivalve

mollusks as evidence that the inventions are "unrelated, have different effects, etc" (Appeal Brief, page 9, lines 11-12). The thrust of this argument appears to be that the examiner cannot for purposes of restriction practice separate out as patentably distinct a group of claims to shucking and a group of claims to elimination of bacteria, then utilize a reference which discloses shucking against the claims which are directed to elimination of bacteria.

While on its surface this argument has a certain logical appeal, the standards for restriction practice are unrelated to the standards applied for patentability over the prior art. To restrict claims, an examiner need only show certain elements (e.g. differing classification) and issues of patentability over the prior art are not considered. See, e!g. MPEP § 806.02 which notes that patentability over the prior art is not considered during restriction. "For the purpose of a decision on the question of restriction, and for this purpose only, the claims are ordinarily assumed to be in proper form and patentable (novel and unobvious) over the prior art. This assumption, of course, is not continued after the question of restriction is settled and the question of patentability of the several claims in view of prior art is taken up." See also MPEP § 807 which notes that "Patentability report

practice (MPEP § 705), has no effect upon, and does not modify in any way, the practice of restriction, being designed merely to facilitate the handling of cases in which restriction cannot properly be required."

Consequently, the fact that the examiner previously restricted oyster shucking claims, even if it were incorrect, is not persuasive as to the lack of anticipation of claims 6 and 7 by Yasushi.

Fifth, the appellant challenges the use of Cheftal by the examiner, stating that it is "improper" as Cheftal was not cited in the rejection and cannot be used in conjunction with Yasushi to establish anticipation under 35 U.S.C. § 102(b). The appellant has misapprehended the use of Cheftal in the rejection. Cheftal was not applied in conjunction with Yasushi to reject claims 6 and 7 under 35 U.S.C. § 102 (b). Rather, Cheftal is used as evidence to support the position that high pressure processing kills *Vibriones*, and this feature of claims 6 and 7 is inherently present in the Yasushi process. Accordingly, we are not persuaded by this final argument and we will sustain the rejection of claims 6 and 7 under 35 U.S.C. § 102(b).

III. The 35 U.S.C. § 103(a) Rejection

A. The Rejection

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yasushi (JP 4356156A).

B. The Examiner's Position

The examiner has found that Yasushi teaches a method of treating shellfish by providing a pressure vessel and exposing raw oysters contained in plastic bags filled with sea-water to hydrostatic pressure of 14,615 - 44,087 psi for 0.5 to 10 minutes at ambient temperatures. The examiner has further found that the method steps in the reference are the same as instantly claimed, and thus the results of effecting pathogenic *Vibriones* bacteria, although not disclosed, would be an inherent property and result of the referenced method. The examiner has further found that it would have been obvious to one of ordinary skill in the art to refrigerate the pressure treated oysters since cooling to refrigeration temperatures was a commonly used method of preserving raw food products. (Examiner's Answer, page 4, line 15 - page 5, line 5)

C. The Appellant's Position

The appellant urges that the examiner is incorrect in that he ignores the limitations in claim 3 of "destroying bacteria in raw

molluscan shellfish" and "causing elimination of naturally-occurring marine bacteria, while retaining sensory characteristics"; and in claim 4 of exposing raw shellfish "to isostatic pressure for a time period sufficient to eliminate *Vibrio Vulnificus* bacteria" (Appeal Brief, page 12, lines 1-8). The appellant also urges that the examiner has used impermissible hindsight to use high-pressure processing to eliminate pathogenic organisms while retaining raw sensory characteristics, which is not taught by Yasushi (Appeal Brief, page 12, lines 13 - 23).

D. Findings of Fact

The findings of fact from section II. D. beginning on page 5 of this decision are adopted in full as if fully set forth again herein.

E. Conclusions of Law

The arguments made by the appellant vis-à-vis the obviousness rejection of claims 3 and 4 are misplaced. The examiner has not ignored limitations in the claims nor has he stated that it would have been obvious to use isostatic pressure to kill *Vibriones*. The examiner has concluded that it would have been obvious to refrigerate the oysters processed by Yasushi, which oysters inherently have had the *Vibriones* bacteria destroyed. (Examiner's answer, page 5, lines 2-4 and page 8, lines 11-16).

As noted above, an inherent result need not be recognized in a prior reference that teaches a process encompassed by the claimed process. See MEHL/Biophile Intl. Corp., supra.

Looking now to claim 3, we note that it claims a process for destroying bacteria in shellfish (which is inherently present in the process of Yasushi, see also findings of fact 13-15) by providing a pressure vessel, (which is the same as Yasushi's high pressure processing device, see findings of fact #5 and 6); depositing shellfish into the pressure vessel (Yasushi places the shellfish into the pressure vessel, see findings of fact #5 and #6); loading a pressure transmitting fluid into the pressure vessel (Yasushi utilizes seawater in the pressure vessel, see findings of fact #5 and #6); pressurizing the pressure vessel to between 20,000 psi and 50,000 psi (Yasushi discloses a specific embodiment 1 at 44,000 psi, see finding of fact #6) for a period of time of between 1 and 15 minutes (Yasushi's embodiment 1 is conducted for 3 minutes, see finding of fact #6). Claim 4 recites that the pressure and time eliminate Vibriones bacteria (Yasushi accomplishes this inherently, see findings of fact 13 - 15).

We also agree that it was well known and obvious to refrigerate processed seafood (see finding of fact # 16), and note that the appellant has not challenged this fact.

Appeal No. 2002-0206
Application No. 09/121,725

Consequently, we agree that the examiner has established a prima facie case of obviousness. We shall sustain this rejection as well.

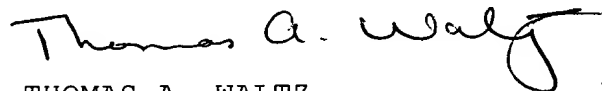
Summary

The rejection of claims 6 and 7 under 35 U.S.C. §102 (b) as anticipated by Yasushi (JP4356156A) is sustained.

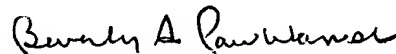
The rejection of claims 3 and 4 under 35 U.S.C. § 103(a) as obvious over Yasushi (JP4356156A) is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED



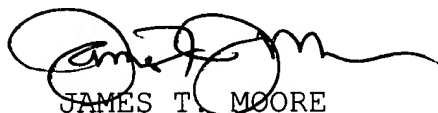
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BEVERLY A. PAWLIKOWSKI)
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INTERFERENCES

Appeal No. 2002-0206
Application No. 09/121,725

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